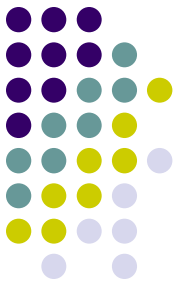


Recreation Needs Analysis Synthesis

Oroville Facilities Relicensing FERC Project No. 2100



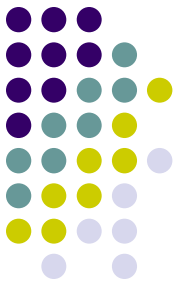
April 24, 2003



Introduction

- A step in the development of a comprehensive recreation master plan
- Compiles and synthesizes demand, supply, capacity, and suitability information from relicensing studies



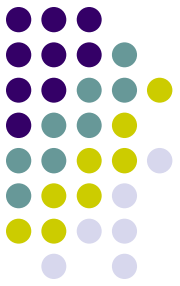


Purpose of Study

- Compile results from other studies into one synthesis
- Identify existing and projected recreation needs over the term of the new license
- Provide information for use in developing the comprehensive recreation master plan
- Satisfy FERC requirements for a Needs Analysis



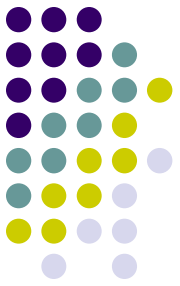
FERC Requirements



- FERC regulations require a Needs Analysis with a schedule of future recreation developments as part of the development of a comprehensive recreation plan.

(Subpart F, 4.51 of 18 CFR)

Overall Study Methodology

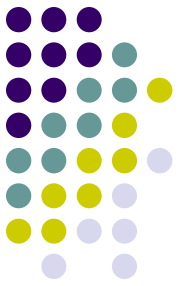


The Methodology is composed of four sub-tasks:

- (1) Review and synthesize results of previous recreation, socioeconomic, and other studies
- (2) Identify overall project-wide recreation needs for the study area
- (3) Identify recreation needs on a site-by-site basis
- (4) Define Project-related needs criteria



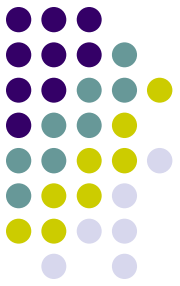
Sub Task #1 - Review and Synthesize Results of Recreation, Socioeconomic, and Other Studies



Consider the following categories:

- Demand
- Supply / Inventory / ADA
- Opportunities / Constraints
- Stakeholder Input



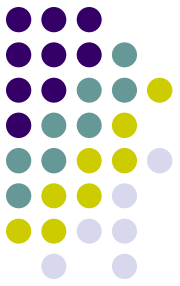


Demand Analyses Considered

Synthesizes results from the following 8 demand studies:

- R4 – Assess Relationship of Fish/Wildlife Management and Recreation
- R5 – Assess Recreation Area Management
- R7 – Reservoir Boating Survey
- R9 – Existing Recreation Use
- R12 – Projected Recreation Use
- R13 – Recreation Surveys

Demand Analyses (continued)

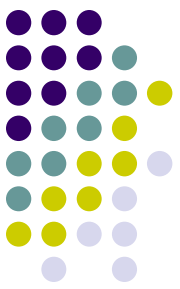


R14 – Assess Regional
Recreation and
Barriers to
Recreation

R18 – Recreation Activity
Spending /
Economic Impacts



R4 – Assess Relationship of Fish/Wildlife Management and Recreation

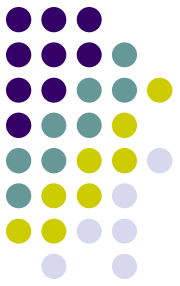


Data provided by this study...

- Ways to potentially enhance fishing, hunting, and wildlife viewing opportunities



R5 – Assess Recreation Area Management

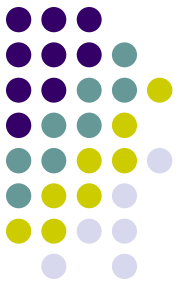


Data provided by this study...

- Effectiveness of the management structure to provide recreation opportunities in the study area
- Management needs (regulations, facilities, etc.)
- Funding needs (grants, alternative fee structure, etc.)



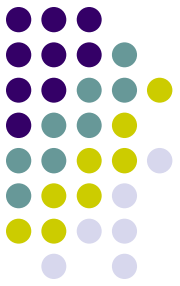
R7 – Reservoir Boating Survey



Data provided by this study...

- Local boating issues
- Boating use levels (BAOT, boat types, use estimates)
- Boating infrastructure (condition of facilities, effects of pool level changes)
- Boater perceptions (attitudes, crowding, management and facility issues, etc.)
- Boating capacity

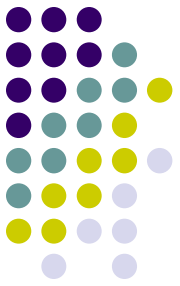
R9 – Existing Recreation Use



Data provided by this study...

- Recreation use by site and area (PAOT, estimated use)
- Seasonal variation (peak season, off season)
- Non-holiday PAOT
- Holiday PAOT
- Recreation activities
- Use distribution (Afterbay, Forebay, Lake Oroville, And Oroville Wildlife Area)

R12 – Projected Recreation Use

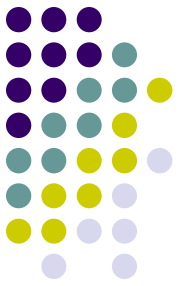


Data provided by this study...

- Future recreation use estimates for the anticipated term of the new license by activity, site and use area



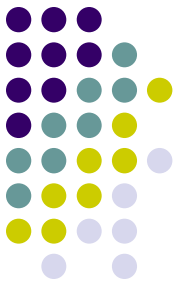
R13 – Recreation Surveys



Data provided by this study...

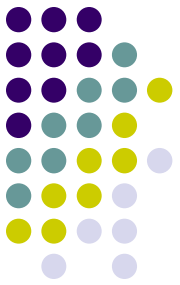
- Socio – Demographic information (age, gender, visitor origin, etc.)
- Visitor activities
- Characteristics (group size, trips per year, length of stay etc.)
- Perceptions of crowding and conflicts
- Facility adequacy, desired facilities, desired activities / special events

R13 – Recreation Surveys (Continued)



- Seasonal use
- Attitudes towards potential management actions
- Visitor satisfaction
- Perceptions of fishing and hunting regulations

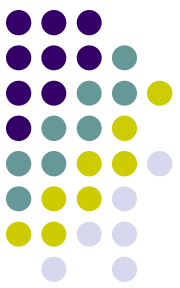
R14 - Assess Regional Recreation and Barriers to Recreation



Data provided by this study...

- Other outdoor recreation resources in the region that compete with the Project area
- Potential future users of Project area recreation facilities
- Potential increased use of the area by existing users
- Potential visitor barriers (time, money, access, etc)

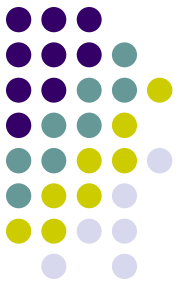
R18 – Recreation Activity Spending / Economic Impacts



Data provided by this study...

- Existing countywide economic conditions
- Direct and in-direct Project economic impacts due to recreation-related expenses
- Sales and income estimates for jurisdictions (Biggs / Gridley, Chico, Oroville, and Paradise)

Supply / Inventory Analyses Considered



Synthesizes the results from the following 7 supply studies:

R1 – Public and Private Vehicular Access

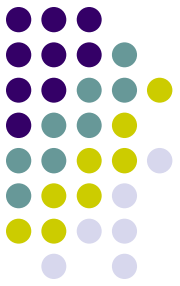
R2 – Recreation Safety Assessment

R6 – ADA Accessibility Assessment

R10 – Recreation Facility and Condition Inventory

R11 – Recreation and Public Use Impact Assessment

Supply / Inventory Analyses (continued)

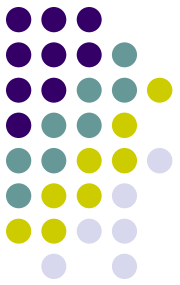


R14 – Assess Regional Recreation and Barriers to Recreation

R16 – Whitewater and River Boating



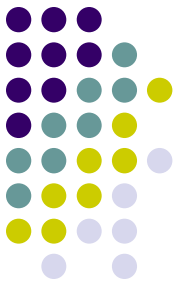
R1 – Public and Private Vehicular Access



Data provided by this study...

- Existing roads for accessing potential new sites
- Effects of future road projects (Highway 70 enhancements, widening of Highway 162, etc.)
- Recommendations on removing barriers to vehicle access
- Access needs for the next license period

R2 – Recreation Safety Assessment

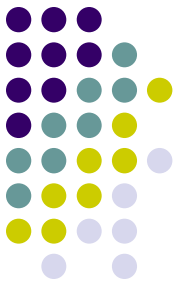


Data provided by this study...

- Public safety issues in the study area
- Potential recreation safety actions
- Visitor perceptions of safety (from survey)
- Input from law enforcement



R6 – ADA Accessibility Assessment

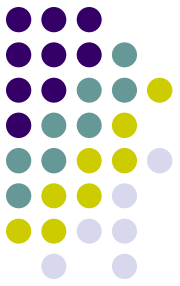


Data provided by this study...

- Existing ADA-accessible facilities
- Future ADA-accessible needs and upgrades



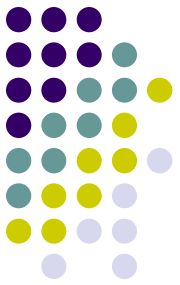
R10 – Recreation Facility and Condition Inventory



Data provided by this study...

- Existing conditions of recreation facilities
- Facility improvement recommendations

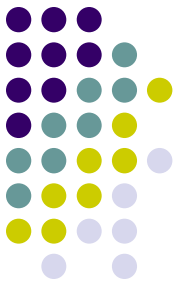




Data provided by this study...

- Observed public use impacts at recreation sites (examples: trash, erosion, vandalism, vegetation damage, sanitation problems)
- Suggestions regarding a long-term monitoring program

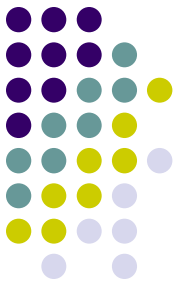
R14 – Assess Regional Recreation and Barriers to Recreation



Data provided by this study...

- Potential facility barriers to increased visitation
- Recommendations on new facilities, programs, or special events

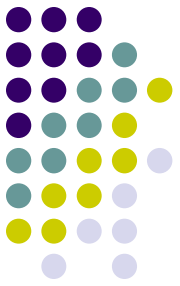
R16 – Whitewater and River Boating



Data provided by this study...

- Characterize river boating recreation opportunities within the Project study area (below Poe Powerhouse, and below Oroville Dam)
- User interest in whitewater related special events
- Boater facility conditions and needs

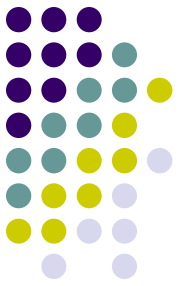
Opportunities & Constraint Analyses Considered



Synthesizes the results from the following 3 studies:

- R3 – Assess Relationship of Project Operations and Recreation
- R8 – Carrying Capacity Analysis
- R15 – Recreation Suitability Analysis

R3 – Assess Relationship of Project Operations and Recreation



Data provided by this study...

- Effects of dam operations on recreation use and experience
- Effects of low and high pool levels on recreation
- Effects of river flow rates and temperature on fishing and swimming opportunities

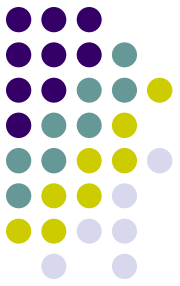
R8 – Carrying Capacity Analysis



Data provided by this study...

- Recreation Capacity Results (4 capacity types)
- Facility Capacity (camp sites, parking spaces, boat ramp capacity, etc.)
- Social Capacity (perceptions of crowding, behavior changes, user conflicts)
- Ecological Capacity (resource impacts, erosion, litter, sanitation, vegetation damage)
- Physical / Spatial Capacity (people/acre, topography, land ownership, acres/boat, expansion potential)

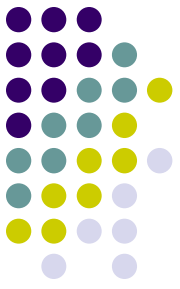
R15 – Recreation Suitability Analysis



Data provided by this study...

- Areas inappropriate for development or use due to physical, biological, or legal reasons (constraints)
- Areas / sites appropriate for potential new development or use (opportunities)
- Composite mapping that compares constraints and opportunities

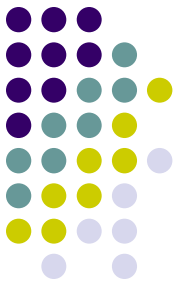
Other Study Results Considered



- L1 – Land Use
- L2 – Land Management
- W3 – Recreation Facilities
and Operations
Effects
on Water Quality
- R19 – Fiscal Impacts
- Terrestrial Studies
- Cultural Resource
Studies



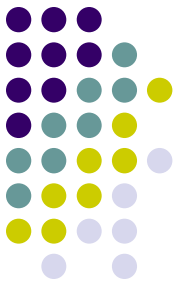
L1 – Land Use



Data provided by this study...

- Mapping of different land uses
- Calculations of land use
- Allowed uses and restrictions





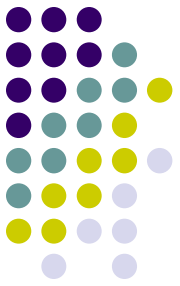
L2 – Land Management

Data provided by this study...

- Information and policies regarding land management and recreation use



W3 – Recreation Facilities and Operations Effects on Water Quality

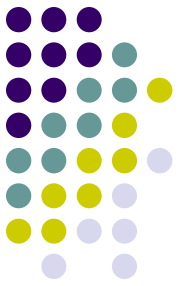


Data provided by this study...

- Impacts to water quality due to recreation use and development



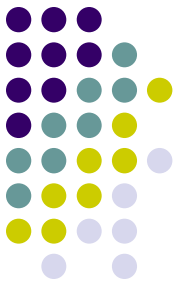
R19 – Fiscal Impacts



Data provided by this study...

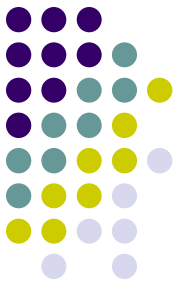
- Estimations of benefits and costs to local jurisdictions (cities, fire districts, parks and recreation districts) associated with the operation of the Project.

Terrestrial and Cultural Resource Studies



Data provided by these other resource studies...

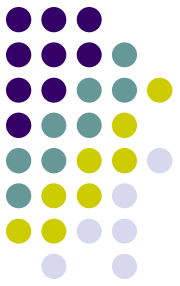
- Sites or areas that contain sensitive species, sensitive habitats, sensitive cultural areas, etc.
- Vegetation cover types
- Many of these factors considered in Study R15 Recreation Suitability



Stakeholder Input

- Scoping Meetings
- Scoping Document Responses
- Work Group Meetings
 - Issue Sheet Development
 - Study Plan Design
 - Study Results Review
 - Presentations & Document Submittals
- Recreation User Surveys
- Non-User Surveys
- Focus Groups

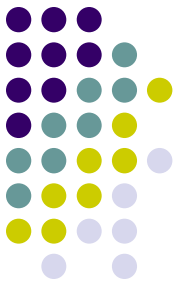
Sub-Task #2: Identify Overall Recreation Needs for the Study Area



Overall Project-wide needs are defined for both current and future conditions

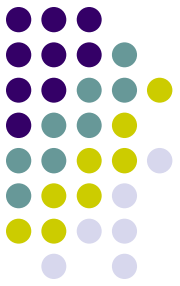


Factors Considered to Identify Overall Recreation Needs



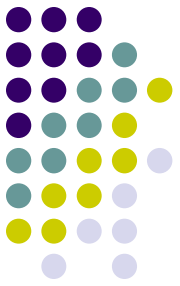
- Study area demand, supply, capacity, and suitability indicators
- Estimate existing and projected use levels
- Capacity levels by resource area and by site
- Opportunities for infill, re-design, or expansion of existing facilities
- Management goals of managing agencies
- Input from stakeholders, agencies, law enforcement, and recreation providers
- Professional judgment

Examples of Overall Project-wide Needs by Geographic Area



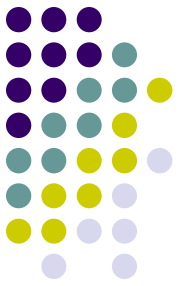
- Overnight RV and tent campsites
- Day use facilities
- Boating facilities
- Interpretation and education facilities
- Visitor contact facilities
- Trail opportunities
- Visitor services
- Visitor control and management

Sub-Task #3: Identify Recreation Needs on a Site-by-Site Basis



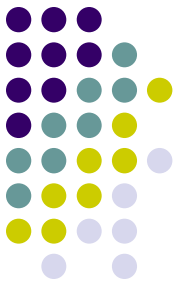
Identifies where overall project-wide recreation needs can best be met on a site-by-site basis.

Examples of Site Specific Trails



- Defining site specific trail locations and types
- Increased maintenance and repair of trail amenities (signs, trailhead parking, etc.)
- Replacing some trail facilities (interpretive displays, turnstiles, etc.)
- Making some trails ADA-accessible
- Identify new trail segments and linkages

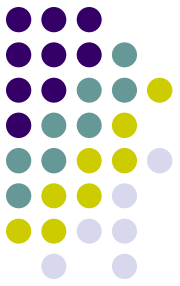
Examples of Site Specific Boating Facilities



- Defining specific ramp lanes for extension improvements
- Improving maintenance and repair (boat ramp, parking area, etc.)
- Providing ADA-accessible boat docks
- Expansion of parking lots

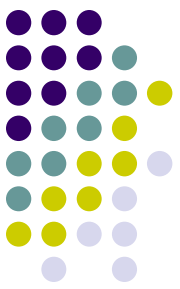


Examples of Site Specific Camping Facilities

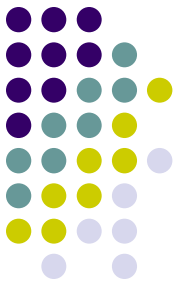


- Defining existing campground expansion and new campgrounds (RV, tent, group)
- Providing improved facility maintenance (parking areas and interior roads)
- Repairing or modifying site facilities (RV dump stations, campsites, etc.)

Sub Task #4 Assess Project-Related Recreation Needs Criteria

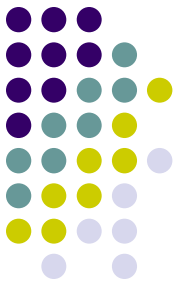


Determine what recreation needs are typically associated with a FERC Project



Common Criteria Used

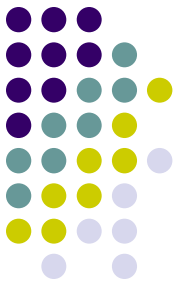
- Criteria identified through consultation
- Examples include proximity to the project and direct project cause



Study Results

Draft and final products will include...

- Description of the study area and methods
- Discussion of existing and estimated future recreation use by activity type
- List of existing and future needs for the overall Project-wide area and on a site-by-site basis
- Project-related needs criteria



Recreation Needs Timeline

- Interim Draft Report: July, 2003
- Interim Final Report: September, 2003
- Draft Report: October, 2003
- Final Report: January, 2004

The End

